

ABSTRACT OF THE DISCLOSURE

An optical control type microwave phase forming device includes: optical demultiplexers each for separating a light radiated from each of light sources into two branch lights; optical frequency converters each for deviating one of the two branch lights outputted from an optical demultiplexer by a predetermined frequency for outputting as a signal light; signal light emitting units each for converting the signal light into a signal light beam having a predetermined beam width to emit the signal light as a signal light beam to space; a spatial optical modulator for phase-modulating the signal light beams into signal light beams having a desired phase distribution; an optical multiplexer for converting the signal light beam outputted from the spatial optical modulator into a multiplex signal light beam to travel a coaxial optical path; an optical synthesizer for synthesizing the other branch lights outputted from the optical demultiplexers into a local light; a local light emitting unit for converting the local light into a light beam having a predetermined beam width to emit the light beam as a local light beam to space; and a beam synthesizer for spatially superimposing the signal light beam and the local light beam to form a synthesized beam.